

REMARKS

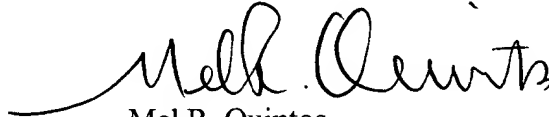
The above amendments are believed to place the claims in proper condition for examination.
Early and favorable action is awaited.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

In the event there are any additional fees required, please charge our Deposit Account No. 01-2340.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES NAME

Claims 8-14 have been amended as follows:

8. (Amended) A quantum cipher communication system as set forth in any one of claims [1 to 7] claims 1-4, 6 or 7, characterized in that threshold values are established, respectively, for positive and negative values of said difference signal, and that the state of said transmission signal is discriminated on the basis of said threshold values.

9. (Amended) A quantum cipher communication system as set forth in any one of claims [1 to 8] claims 1-4, 6 or 7, characterized in that in addition to the phase modulations designed to transmit privacy keys, such as phase modulation is so imparted as described and having a value later determined for making a correction for a fluctuation of the difference in optical path between said reference signal and said transmission signal which develops by reason of an external cause.

10. (Amended) A quantum cipher communication system as set forth in any one of claims [1 to 9] claims 1-4, 6 or 7, characterized in that such phase modulations are so imparted as described and including those for transmitting privacy keys and those with values later determined are randomly repeated.

11. (Amended) A quantum cipher communication system as set forth in any one of claims [1 to 10] claims 1-4, 6 or 7, characterized in that eavesdropping is detected on the basis of an increase in the error rate of said difference signal.

12. (Amended) A quantum cipher communication system as set forth in any one of claims [1 to 11] claims 1-4, 6 or 7, characterized in that eavesdropping is detected on the basis of a change in a Wigner distribution function that indicates a quantum mechanical state of said difference signal.

13. (Amended) A quantum cipher communication system as set forth in any one of claims [1 to 12] claims 1-4, 6 or 7, characterized in that said two output lights are converted into corresponding electric signals through photoconductor diodes.

14. (Amended) A quantum cipher communication system as set forth in any one of claims [1 to 13] claims 1-4, 6 or 7, characterized in that for said photoconductor diodes, use is made of silicon photoconductor diodes when the light has a wave length of 600 nm to 900 nm, and of InGaAs photoconductor diodes when the light has a wave length of 1000 nm to 1500 nm.

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